

did not provide enough time to evacuate patients in all hospital departments simultaneously, resulting in a shortage of human resources. There was a planned shutdown of the electronic clinical record system at 0 hours to avoid water damage and evacuation of its server, but three hours were not enough to prepare patient clinical summaries.

**Discussion:** There is a need for greater and earlier preparation for evacuation to reduce or discharge patients who can leave the hospital when a flood disaster is predicted. Only in-hospital vertical evacuation was considered because it is very risky to transfer critical patients without an evacuation order from government or municipal officials. In fact, over 10,000 patients would need to be evacuated in the region if the Arakawa River floods. Therefore, a regional plan is indispensable for such large scale and simultaneous hospital evacuations.

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### Organohalogen Contamination in Vietnamese Women Electronic Waste Recyclers Living and Working in Rural Northern Vietnam

*Dr. Jenevieve Kincaid*

University Nevada Reno School of Medicine, Reno, United States

**Introduction:** Electronic waste (e-waste) is increasing worldwide and is often shipped from developed to developing countries. Many of these products contain toxic levels of metals, organics, etc. When unsafe recycling approaches or methods are used (e.g., burning wire to reclaim copper), the resulting occupational exposures can adversely affect the health of e-waste recyclers.

**Aim:** To identify which polybrominated and which polychlorinated dibenzo-p-dioxins/furans are higher in electronic waste recyclers when compared to non-recyclers.

**Methods:** This study focused on female e-waste recyclers and non-recyclers that live in rural northern Vietnam. Whole blood, urine, and serum of forty e-waste recyclers and twenty Vietnamese comparisons and were evaluated for metals, organics, and dioxin-like exposure by the Center for Disease Control. This paper will be reporting on serum organohalogenes. The Vietnamese cohorts were compared to the U.S. general population, using the National Health And Nutrition Examination Survey. TEQ's were calculated and statistical significance was determined using Wilcoxon Rank Sum Test. The IRB of the University of Texas Health Science Center Houston and the Ethics Board of the Hanoi School of Public Health oversee this study.

**Results:** 12378-PeCDF, 123678-HxCDD, 123678-HxCDF, and 1234678-HpCDF were significantly different between recyclers and Vietnamese comparisons. Total dioxin TEQ was higher in e-waste recyclers than comparisons. Of the polybrominated dioxins and furans, 12378-PeBDD and 2378-TeBDF were significantly different between recyclers and comparisons.

**Discussion:** This is the only study with data on polybrominated dibenzo-p-dioxins/furans in female electronic waste recyclers from rural Northern Vietnam, and the first to describe serum levels of both polychlorinated and polybrominated

dibenzo-p-dioxins/furans in Vietnamese female e-waste recyclers. Improved occupational protocols may reduce potential adverse health effects such as cancer, endocrine, reproductive, developmental, and other disorders.

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### PARABORN: A Training Program for “Outdoor” Activities by Pregnant Urgent Patients for Paramedics

*Dr. Vaclav Jordan MScDM, EMDM*

Flurstiftung. ch, Hospital, Schiers /gr, Switzerland

**Introduction:** Spontaneous delivery is a completely physiological phenomenon. Occupational obstetric care in a hospital environment focuses on supporting the mother, the smooth progression of the baby, and the treatment of the newborn child. Occupational activities play a rather supportive and assisting role. The obstetrician and the midwife are ready to respond immediately in the hospital environment to any complications or sudden emergencies. During a birth outside of the hospital environment, there are a number of influences that can cause complications in an unprepared environment without professional assistance, endangering the condition of both the child and the woman.

**Methods:** The educational concept of PARABORN focuses on situations outside the hospital environment. It is generalized and adaptable to varying geographic, economic, and cultural-political conditions of the target providers, particularly to rescue and paramedic teams. Educational concepts are specialized, interactive courses. The course includes a theoretical and practical block. In the theoretical part, the participants acquire knowledge of urgent obstetric conditions in an out-of-hospital environment including an overweight birth, bleeding, premature delivery, or a complicated delivery (non-standard position, umbilical cord prolapse, etc.). In the practical block, participants acquire the skills of acute interventions as well as methods of communication in these emergency situations. Practical training takes the form of case studies and can be tailored to the real geographic and cultural conditions in which the intervention units operate such as remote terrain, conflicts zones, etc.

**Discussion:** The knowledge of the cultural and political environment is a necessary prerequisite for managing the urgent situation. Paramedics, as first responders, should have adequate training to manage maternity situations in an out-of-hospital environment where a hospital environment is not available or accessible either by choice or circumstance.

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### Pediatric Outpatient/Urgent-Care Emergency and Disaster Planning

*Dr. Michael Frogel, Dr. George Foltin, Dr. Arthur Cooper*

New York City Pediatric Disaster Coalition, Brooklyn, United States

**Introduction:** Children are frequently victims of disasters, however important gaps remain in pediatric disaster planning. This includes a lack of resources for pediatric preparedness planning for patients in outpatient/urgent-care facilities. The